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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,398	03/31/2004	Wang Yuch	42P18694	7576

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EXAMINER

LEE, SIN J

ART UNIT PAPER NUMBER

1752

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/815,398

Applicant(s)

YUEH ET AL.

Examiner

Sin J. Lee

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4,15 and 28-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4,15,30,31 and 37-45 is/are allowed.
- 6) ☒ Claim(s) 28,29,32-36 and 46-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Applicants canceled claims 1-3, 5-14, and 16-27.
2. In view of the amendment of April 13, 2005, previous 102(b) rejection on claims 1, 2, 5-8, 10-14, 16-23, 25-27 and 30 over Asakawa et al'897 is hereby withdrawn. Asakawa does not teach or suggest present hydrophilic group which comprises a sulfhydryl group.
3. In view of the amendment of April 13, 2005, previous 102(b) rejection on claims 1, 2, 5-8, 10-14, 16-23, 25-27 and 30 over Douki et al (EP'379) and previous 103(a) rejection on claims 3, 9 and 24 over Douki et al (EP'379) are hereby withdrawn. Douki does not teach or suggest present hydrophilic group which comprises a sulfhydryl group.
4. Due to new ground of rejection, the following rejection is made non-final.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
6. Claims 32-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 32 recites the limitation "the hydroxyl group" in line 2. There is insufficient antecedent basis for this limitation in the claim.

7. Claims 28, 29, and 46-54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 28, applicants recite, "wherein exposing the layer to the radiation comprise *wetting the at least one hydrophilic group of the detached group with an immersion lithography fluid.*" The Examiner is not sure as to what applicants mean by this limitation. The method of present claim 28 comprises an exposing step, an acid-generating step, a step of detaching an acid labile group having at least one hydrophilic group attached thereto from a polymeric chain, and a developing step, and the *developing step includes wetting the at least one hydrophilic group (of the detached group) with the developer*, dissolving the detached group in the developer, dissolving the polymeric chain in the developer, and removing the developer. Are applicants saying that there are two separate wetting of the at least one hydrophilic group of the detached group (one with an immersion lithography fluid and the other with the developer)? Also, it is the Examiner's understanding that the acid labile group is detached from the polymeric chain *only after* the reaction with an acid (which is generated from the radiation-sensitive acid generator *upon exposure*). So, how is it possible that the exposing step, which occurs before the acid-generating step and the detaching step, comprises wetting the hydrophilic group *of the detached group* with the immersion lithography fluid?

Appropriate correction or clarification is required.

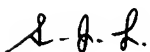
***Allowable Subject Matter***

8. Claims 4, 15, 30, 31, and 37-45 are allowed. As discussed above, neither Asakawa'897 nor Douki (EP'379) teaches or suggests present sulfhydryl group of present claims 4 and 15.

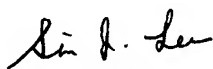
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is 571-272-1333. The examiner can normally be reached on Monday-Friday from 9:00 am EST to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Lee  
August 3, 2005

  
**SIN LEE**  
**PRIMARY EXAMINER**